CONTRACTOR METRICS FOR SERVICE CONTRACTS

CAPT JONATHAN L. WRIGHT
AFLMA FINAL REPORT LC199913100
TEAM MEMBERS
LT COL LUCY YARBROUGH
CAPT JUDSON BISHOP
SMSGT PAUL BANIS
TSGT JEFFERY FEENEY
DR. THOMAS GAGE

APRIL 2000

AIR FORCE LOGISTICS MANAGEMENT AGENCY

MAXWELL AFB, GUNTER ANNEX AL 36114-3236

REPORT DOCUMENTATION PAGE

FORM APPROVED
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave Blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	April 2000	Final Report

4. TITLE AND SUBTITLE

Contractor Metrics for Service Contracts

5. FUNDING NUMBERS

6. AUTHOR(S)

Capt Jonathan L. Wright, AFLMA/LGC, DSN 596-4085

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Air Force Logistics Management Agency/LGC
501 Ward Street
Maxwell AFB, Gunter Annex AL 36114-3236

8. PERFORMING ORGANIZATION REPORT NUMBER

LC199913100

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

HQ PACAF/LG
25 E Street, Suite I-326
Hickam AFB HI 96853-5427

SAF/AQC
1060 Air Force Pentagon
Washington DC 20330-1060

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

SAF/PAS approval # 00-S-1695 dated 18 Apr 00.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

A

13. ABSTRACT (Maximum 200 Words)

Because of the increased emphasis on performance management and continuous improvement, HQ PACAF/LG tasked AFLMA to develop contractor metrics for service contracts. SAF/AQC co-sponsored this study to identify top-level metrics to determine the health of the Air Force service contracts program. This study provides the necessary Service Delivery Summaries and Quality Assurance Surveillance Plans related to using contractor metrics on service contracts. This enables quality assurance personnel in providing insight and therefore reducing the oversight role. It also lays the foundation for a performance management plan for a competitive sourcing acquisition. This is necessary as functional areas lose their organic expertise to conduct appropriate surveillance.

14. SUBJECT TERMS

Performance management, performance measurement, AFI 63-124, Performance-based service contracts, quality assurance, metrics, continuous improvement, surveillance, incentives, award fee, quality.

15. NUMBER OF PAGES

69

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified	Unclassified	UL

EXECUTIVE SUMMARY

Problem:

A new Air Force instruction, *AFI 63-124, Performance-Based Service Contracts*, effective since 1 Apr 99, offers a unique surveillance approach for Air Force service contracts. The surveillance approach, using contractor metrics, bears the philosophy to provide "insight" rather than "oversight" in order to enhance the quality assurance role. The philosophy also centers on continuous improvement within performance management. Air Force contracting agencies have little experience with this new focus, and particularly with using contractor metrics in contract quality assurance. At the same time, functional areas are losing their organic expertise to conduct appropriate surveillance. There is also no current method to consistently evaluate the health of a contracting program.

As a result, HQ PACAF/LG asked AFLMA to develop standardized contractor metrics for service contracts. SAF/AQC cosponsored out of concern of evaluating Air Force service contracting efforts. In response to these requests, our objectives identify top-level metrics to determine the Air Force service contracts program's health and provide the necessary Service Delivery Summaries and Quality Assurance Surveillance Plans related to using contractor metrics.

Objective(s):

This project identifies contractor metrics for Air Force service contracts. The study focuses on five major service contracts: "The Big 4" (custodial, grounds maintenance, Military Family Housing (MFH) maintenance, and refuse collection and recycling) plus full food service. It then includes general metrics for all service contracts. The project addresses the following objectives:

- Providing metrics definitions, the data, and the objective each metric accomplishes;
- Outlining rules about getting the data;
- Identifying the appropriate data source(s);
- Creating Service Delivery Summary and Quality Assurance Surveillance Plan for each service contract.

Analysis/Results:

In order to strategically choose and craft the most appropriate metrics, this study first suggests a vision and strategy for Air Force service contracts. The vision:

> Long-term, best value service providers, as active Air Force partners, focus on the customer and continuous improvement for maximum achievement, and address Air Force needs while also complying with applicable Air Force instructions and policy directives while also employing best commercial practices.

Key objectives were then established to steer these service performance areas towards the vision. These objectives include identifying customer complaint causes, establishing a healthy workforce vitality, promoting safety, and advocating contractor suggestions.

The study advocates Air Force-chosen metrics rather than contractor-suggested metrics for measuring the service contract's and partnership's health. Note: the study's scope does not address internal, quality control metrics which a contractor would develop. With respect to several objectives, they focus on specific, measurable, meaningful, and practical indicators for highly effective partnerships. The study also addresses using customer complaints. For sufficient feedback, information must show reasons for customer dissatisfaction, not necessarily the number of customer complaints. A high number of non-valid customer complaints were recurring problems. As non-valid complaints could represent a problem area, QAs have indicated their preference to quantify the percentage of non-valid complaints of the total complaints received. Data integrity becomes suspect when the customer complaint system includes more people.

Note: The metrics developed as a result of this study are listed in the appendices (Appendix A.1 through Appendix G.2). The metrics are presented in a useful format to contracting and quality assurance personnel. The same appendices are provided in electronic form on the World Wide Web at the Business Solutions Exchange web site. Here is the address: www.bsx.org, and then go to <BSX Communities of Interest> and then <Contractor Metrics for Service Contracts>. This web site contains the following:

- The Service Delivery Summary (SDS) for each service contract in this study.
- The Quality Assurance Surveillance Plan that correspond to each SDS.
- Excel workbooks to illustrate how to collect the information and to portray the metrics.
- An outline of necessary steps towards using contractor metrics as a surveillance method.
- A "Frequently Asked Questions" document has been posted there as well to cover many issues regarding this surveillance approach.
- The Office of Federal Procurement Policy's (OFPP's) memorandum which provides a performance-based service contracts checklist.

Conclusions:

The metrics created in this study (located in the Appendices) are portions of actual Service Delivery Summaries (SDSs) and Quality Assurance Surveillance Plans (QASPs) for the Air Force's five major service contracts. Functional commanders, contracting commander, and contracting officers may use these metrics for their service contracts. They may also tailor them to suit local needs.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

BACKGROUND

Senior federal officials have emphasized performance-based contracting since 1991, but recently they have increased their attention on the approach.[1] This is partially due to the recent attention on using best commercial practices, consolidating requirements, operating within constrained resources, and reducing total ownership costs.[2] For example, the Under Secretary of Defense cited the necessity to shift from supply management to supplier management.[3, 4] Also, the *1999 Contracting 21 Business Plan* highlights contract performance.[5] The business plan advocates developing and managing effective service relationships in order to fulfill high expectations.[6] As another example, the HQ AMC/CC even announced full support to achieve better contractor performance and reducing overall costs through performance-based contracting.[7] Also, a recent interview with the Air Force Civil Engineer (HQ USAF/ILE) also addressed the current need to fully support the mission with high quality of life levels by maintaining and operating Air Force installations.[8]

Senior officials have also emphasized the business advisor role for contracting officers. The advisors need objective, performance-based, and customer-focused information to facilitate performance management. The business advisor uses this information as a tool to implement the necessary changes for achieving maximum performance.

Within the Air Force, *Air Force Instruction 63-124, Performance-Based Service Contracts* (implemented 1 April 1999) features new methods for the business advisor and his or her team.[9] The instruction also involves new methods for Quality Assurance (QA) personnel.[10] The new methods shift from oversight (in-process inspections by random sampling) to insight (validating a provider's management system and process performance metrics) for quality and contract compliance. To facilitate insight, performance-based specifications include measurable performance objectives to encourage contractors to develop innovative solutions and implement cost-effective methods. The QA validates the performance objectives' achievement and promotes continuous improvement. With reliance on customer complaints, the QA may use contractor metrics in addition to other surveillance methods to measure the contractor's performance quality.[11]

The Federal Acquisition Regulation (FAR) requires contractors to maintain an inspection system for their services.[12, 13] As for acceptance, the Air Force may review the contractor's inspections to confirm contract compliance.[14, 15]

These inspections may provide information to diverse stakeholders. The AFI directs various management levels to provide updates to their higher management level about their services

contracts.[16] That is, MAJCOM directors shall update their MAJCOM/CCs annually on the command's service contract program. A Performance Management Council's (PMC's) duties include assessing their contractors' operation effectiveness and Air Force contract management effectiveness in addition to approving partnership agendas. Contracting squadron commanders shall update their installation commanders twice each year on the installation's contract services program. A Business Requirements Advisory Group's (BRAG's) duties include contract performance management (e.g., analyzing contractor metrics and evaluating performance for payment and award fees).

Throughout these various reporting levels, performance management centers around identifying problems, providing solutions, and offering approaches towards continuous improvement. Continuous improvement (using feedback to make ongoing adjustments in pursuing a corporate vision) includes information to determine whether or not objectives have been achieved.[17] The partnership communicates to correct or reward those activities and processes which affect achievement towards the vision.

Performance management systems exist to accomplish several other efforts. They may include: a) Demonstrating performance; b) Providing information to different stakeholders who have different expectations; c) Determining if they have fulfilled certain needs; d) Achieving maximum performance within constrained budgets and resources; e) Identifying performance level and comparing it to others; f) Determining effective resource use; g) Setting goals; h) Learning through root cause analysis; and i) Standardizing improvements.[18, 19, 20]

Air Force/contractor partnerships require these efforts. To their aid, the *AFI 63-124, Performance-Based Service Contracts* allows a new surveillance method: reviewing contractor metrics. This method shifts inspection responsibility to the service contractors and adjusts Quality Assurance inspection duties with validating those service contractors' quality control plans and promoting continuous improvement. Validation duties include enough surveillance to know if the metrics portray accurate information. Although new to the Air Force (*AFI 63-124* became effective 1 Apr 99), commercial practices have been using Total Quality Management initiatives for quite some time. Still, industry and government organizations incorporate performance management to demonstrate return on investment, benchmark, and facilitate continuous improvement.

PROBLEM STATEMENT

A new Air Force instruction, *AFI 63-124, Performance-Based Service Contracts*, effective since 1 Apr 99, offers a unique surveillance approach for Air Force service contracts. The surveillance approach, using contractor metrics, bears the philosophy to provide "insight" rather than "oversight" in order to enhance the quality assurance role. The philosophy also centers on continuous improvement within performance management. Air Force contracting agencies have little experience with this new focus, and particularly with using contractor metrics in contract quality assurance. At the same time, functional areas are losing their organic expertise to

conduct appropriate surveillance. There is also no current method to consistently evaluate the health of a contracting program.

As a result, HQ PACAF/LG asked AFLMA to develop standardized contractor metrics for service contracts. SAF/AQC cosponsored out of concern of evaluating Air Force service contracting efforts. In response to these requests, our objectives identify top-level metrics to determine the Air Force service contracts program's health and provide the necessary Service Delivery Summaries and Quality Assurance Surveillance Plans related to using contractor metrics.

STUDY OBJECTIVES

This project identifies contractor metrics for Air Force service contracts. The study focuses on five major service contracts: "The Big 4" (custodial, grounds maintenance, Military Family Housing (MFH) maintenance, and refuse collection and recycling) plus full food service (and mess attendants). It then includes general metrics for all service contracts. The project addresses the following objectives:

- Providing metrics definitions, the data, and the objective each metric accomplishes;
- Outlining rules about getting the data;
- Identifying the appropriate data source(s);
- Creating Service Delivery Summary and Quality Assurance Surveillance Plan for each service contract.

This Page Intentionally
Left Blank

CHAPTER 2

METHODOLOGY

APPROACH

Interviews were conducted with commercial and government representatives who have a broad range of facility management responsibilities. These interviews explored a wide range of performance management methods. Specific attention was drawn to scorecard systems and quality control plans to learn how they best use performance management. After developing contractor metrics for Air Force service contracts, a close review of metric collection and reporting details followed.

This study addresses five service contracts:

- Custodial
- Full food service (and mess attendants)
- Grounds maintenance
- Military Family Housing (MFH) maintenance
- Refuse and recycling collection

These contracts represent five most common Air Force service requirements: four civil engineering contracts ("The Big Four") and the full food service contracts. The latter was added due to recent attention in implementing *AFI 63-124, Performance-Based Service Contracts*. Commercial and public service facilities managers also commonly outsource housekeeping, food service, grounds keeping, trash collection, and building maintenance, among other services.[21] The study also provides general metrics for all Air Force service contracts, regardless of the service requirement (See Appendix A.1 and Appendix A.2).

For this study's metrics, see the Appendices. They are in the Service Delivery Summary and Quality Assurance Surveillance Plan format, which is useful to the contracting officers and quality assurance personnel.

VISION AND STRATEGY

Before raising attention to developing metrics, this study first suggests a vision and strategy for Air Force service contracts. Otherwise, one may create metrics without knowing how they affect a strategic plan. After all, performance management aligns vision, strategic objectives, and performance outcomes and strategic objectives integrate a business plan's outcomes.[22, 23] The vision and strategy for Air Force service contracts:

> Long-term, best value service providers, as active Air Force partners, focus on the customer and continuous improvement for maximum achievement, and address Air Force needs while also complying with applicable Air Force instructions and policy directives while also employing best commercial practices.

This vision was suggested with regard to how a partnership conducts performance management. It starts with selecting a best value contractor, which is the most preferred method of selecting the most advantageous contractor proposal for the service requirement. ("Best value" techniques employ a tradeoff between proposal merits, the contractor's past performance, cost/price, and proposal risk. Some "best value" methods, such as Performance Price Tradeoffs only consider past performance and cost/price, but still the end result is choosing the most advantageous contractor on other factors besides cost/price alone.)

Assuming that the best contractor has been selected, the contract relationship should continue through a typical 5-year service contract length. The vision underscores the need for a partnership in order to address Air Force business plans and goals. The current overarching philosophy is to deem the contract relationship as a partnership. This vision uses the word "active" to reinforce the point rather than considering partnerships as "business as usual." *AFI 63-124, Performance-Based Service Contracts* emphasizes customer satisfaction and customer feedback as well as relying heavily on commercial practices while still complying with Air Force instructions and policy directives.

Performance areas within each service contract were then identified to answer "What contract requirements achieve this vision?" Key objectives were then established to steer these service performance areas towards the vision. For example, these objectives include identifying customer complaint causes, establishing a healthy workforce vitality, promoting safety, and advocating contractor suggestions.

CRITERIA FOR METRICS

Several criteria for the metrics were used. One was using effective measurements. In other words, indicators should measure the achievement of goals. Functional representatives suggested or agreed to the indicators. Equally important, the metrics should focus on outcomes and results, not on the process. After all, the contractor bears responsibility for process metrics. The metrics proposed in this study facilitate the business advisor's strategic plan for fulfilling the service requirements. Overall, these metrics demonstrate whether or not one has achieved desired results, they may identify trends, they drive appropriate action, and they lead one to fact-based decisions. Another criterion was efficiency. Metrics were chosen with respect to the time and effort required to collect, analyze, and evaluate them (i.e., cost versus benefit). Finally, the metrics were filtered through the following additional criteria: risk involved in not having the metric, objective priority, contract attention/visibility, and any pre-existing requirements to record the data on an Air Force form (the last criterion avoids creating additional work).

The metrics were also limited in number to facilitate a better focus and to emphasize their importance. However, too few measures would have the potential to portray an inaccurate performance assessment. In this regard, insufficient information may cause erroneous conclusions. Therefore, the report proposes limited, yet sufficient, metrics.

Some criteria found in Malcolm-Baldridge evaluations for performance excellence for services were also used.[24] These considerations included incorporating new technology, process design, cycle time, key performance measures, and suggestions. Partnership criteria also reflect actionable feedback, targets, minimizing total costs, and a supportive customer role. Therefore, some metrics reflect reasons for customer dissatisfaction, contractor responsiveness to the customer, and customer training.

SAMPLE

This study involved more than 110 people through face-to-face interviews, e-mails, and/or phone calls. These people represented 9 public-sector organizations (other than PACAF organizations) and 39 commercial corporations. Both the public organizations and the commercial corporations were useful in gathering market research. The interview method was used with a standard question list, yet the interviews allowed the conversation to stray from the list as well. Site visits, a performance review, and a dining facility's menu planning board were also used to solicit and define appropriate metrics for the five service contracts. Then in-depth interviews with the respective civil engineering and services personnel were used to validate and further refine the metrics. Face-to-face interviews were held with people representing the following Air Force organizations:

- 15 CES
- 15 CONS
- 15 SVS
- 16 CONS
- 16 CES
- 16 SVS
- 21 CONS
- 42 ABW/LGC
- 42 ABW/CES
- 80 CONS
- AFCESA (and TRW)
- AFMIA/MICO
- HQ AETC/LGC
- HQ AMC/LGC
- HQ PACAF/LGC
- HQ AFSPC/LGC
- HQ USAFA/LGC
- SAF/AQCO

REVIEW PERIOD

Preliminary metrics were e-mailed, as a minimum, to the PACAF QAPCs with courtesy copies to their squadron commanders. Other organizations were represented in the review, including: SAF/AQCO, HQ AMC/LGC, HQ ACC/LGC, HQ AFSPC/LGC, HQ AETC/LGC, 16 CONS, 42 ABW/CE, HQ USAFA/LGC, RAND, UMS Group, and AFCESA (TRW). The preliminary

metrics were also posted on Business Solutions Exchange (BSX) with discussion forums for each service contract. The review period lasted almost one month. The following questions were posed to all people involved in the review:

- What needs to be addressed in standardizing these metrics?
- What challenges are included in standardizing these metrics?
- Do you think these metrics paint a full picture on the health of that contract?
- What objections do your functionals (and joint service customers) raise to using these metrics?
- How do you think the local customs will affect your service contractor using the suggested metrics?

The answers to these questions were used to rework and finalize the metrics. As stated in other sections of this report, the metrics from this study are provided in the Appendices (Appendix A.1 through Appendix G.2). They are in the Service Delivery Summary and Quality Assurance Surveillance Plan format and they are also located on in electronic format on the World Wide Web. The web site is: www.bsx.org, then choose <BSX Communities of Interest> and then <Contractor Metrics for Service Contracts>.

AN OUTLINE FOR DEVELOPING CONTRACTOR METRICS

This study provides metrics for five specific contracts. Because the metrics are specific to those contracts, the following outline can serve as a general guideline for developing metric sets as surveillance methods for other types of contracts:

- Develop a vision for the partnership and its performance management.
- Choose strategic objectives that steer specific performance areas towards this vision.
- Conduct appropriate market research and brainstorm as necessary to identify potential metrics.
- Select metrics that indicate how well the objectives are achieved. Note: using carefully selected contractor metrics along with Air Force (customer) developed metrics is a surveillance methods that can be accompanied with other methods such as customer complaint, periodic inspection, third party audit, and so on.
- Refine the metrics by soliciting the contractor's feedback.
- Mutually agree on the selected metrics. Note: Writing them into the Quality Assurance Surveillance Plan is a contracting officer's unilateral decision yet building the contractor's buy-in will promote a more active partnership.
- Collect information for the metrics during a baseline period (e.g., the first three months). Expect to see a learning curve. Use the optimal portions of the learning curve to create a baseline and then identify a performance target.
- Report the information to stakeholders: senior management, subordinates, and customers.

- Evaluate the selected metrics as necessary and either continue using, further refine, or replace them as necessary. Be careful not to modify/replace metrics just because they are showing unintended results. Also, use customer feedback in validating and/or evaluating metrics. For example, check to see if the contractor's metrics are congruent with customer feedback or customer complaints.

This Page Intentionally Left Blank

CHAPTER 3

THE DATA AND RESULTS

INTRODUCTION

Note: The metrics developed as a result of this study are listed in the appendices (Appendix A.1 through Appendix G.2). The metrics are presented in a useful format to contracting and quality assurance personnel (Service Delivery Summary and Quality Assurance Surveillance Plan). The same appendices are provided in electronic form on the World Wide Web at the Business Solutions Exchange web site. Here is the address: www.bsx.org, and then go to <BSX Communities of Interest> and then <Contractor Metrics for Service Contracts>. In addition to the SDSs and QASPs, an Excel workbook has been provided to illustrate how to collect the information and portray the metrics for each service contract in this study. A "Frequently Asked Questions" document has been posted there as well to cover many issues regarding this surveillance approach. The OFPP's memorandum which provides a performance-based service contracts checklist has been provided as well.

Respondents raised several issues. One concern identified the difference between quality control metrics and those that the Air Force reviews. Related to this issue, they also introduced an argument between Air Force-chosen metrics and those suggested by the contractor. Respondents also offered various opinions on whether or not to link the partnership metrics to an award fee. Other issues included conducting performance reviews, participating in partnerships, explaining the business advisor role, and using customer complaints.

LIMITATIONS

Given time and personnel factors, this study was limited in targeting only five major service contracts. As other service contracts would benefit from further metrics research, this study provides a process for doing so.

The choice of implementation has its tradeoffs of advantages and disadvantages. This study's recommendations do not require modifying a contract or waiting until the next award. Some have perceived that incorporating new metrics into their contract would add costs and/or change the requirements. However, Quality Assurance Surveillance Plans (QASPs) are not a contractual instrument; they may be changed at the Contracting Officer's (CO's) discretion. Further, partnership agreements should allow for flexibility in performance management. For those not having an agreement, Business Requirement and Advisory Group members (with the CO's and Functional Director's endorsement) may introduce these metrics to their providers and both sides of the contract relationship may agree to use them. If this is not possible, at least waiting until awarding a new contract introduces the approach at the beginning of the contract relationship.

RESULTS

Market research among commercial firms and government organizations revealed diverse sets of metrics.[25] The diversity represents the link a provider must make to the customer's strategic goals and not vice-versa. Because each customer/provider relationship differs, standard metrics were not found except for a common tendency to use employee turnover (churn rate) and safety indicators. As an intrinsic standard, partnerships normally contain a mix of metrics representing results, outcomes, processes, and impact statements.[26]

One debate regards who establishes the metrics—the Air Force or the contractor? One side argues the contractor may tailor the metric set to the business process. The contractor-suggested metrics argument advocates the contractor's ingenuity and industry knowledge. With metrics already tested and proven to have sustained the contractor in business, this argument underscores how a contractor would avoid additional work (and cost) to meet Air Force-chosen metrics. Furthermore, this argument recognizes the reduced Air Force's quality assurance manpower and therefore places the burden on the contractor to develop metrics based on their knowledge in the industry.

Note: contractors do keep internal metrics—ones related to their resource allocation, processes, and policies. However, these metrics may differ from those chosen by a customer. For example, customers tend to measure whether or not they received services while providers track whether their processes achieved appropriate results (i.e., costs).[27] This study does not standardize internal (quality control) metrics; it provides the information tools most useful to the Air Force in order to facilitate a working partnership, continuous improvement, and contractor innovation.

To illustrate the difference between internal contractor metrics and those useful to the partnership, consider the full food service contract. The contractor maintains many metrics which the Air Force does not necessarily review. A few examples include the budgeted versus actual hours used for the day, average number of breaks per person, and the number of breakfast, lunch, and dinner meals by date for forecasting future resource decisions. The partnership does not necessarily consider these metrics. Instead, they consider overall operation, revenue, and sanitation objectives, to name a few. Therefore, the partnership should consider certain metrics such as a monthly Hennessy program score, monthly earned income (i.e., sales), and percent of managers who have not yet received food handlers training. (The Hennessy program is a third-party audit of all Air Force dining facilities. In this annual contest, each dining facility is rated by a group of experts and the score reflects the entire scope of the food service program.) These are a few examples of how the Air Force will develop a mutually beneficial performance management plan by selecting the metrics rather than having the contractor select them. See Appendix C.1 and Appendix C.2 for the full food service SDS and QASP.

Therefore, Business Requirements and Advisory Group (BRAG) members should use partnership metrics to reflect Air Force priorities in addition to relying on the contractor metrics

concerning quality control.[28] The Air Force also establishes the targets—they define the requirements. While contractors may develop their own metrics, the Air Force must develop strategic objectives and link certain metrics to them.

With Air Force-chosen metrics, the partnership has full-picture reporting by using information beyond the contractor's key strengths. The metrics should not report scores on how well the contractor performed according to their core competencies. Air Force-chosen metrics may provide Air Staff and MAJCOMs information as to the service contracts' health and how well the contractors achieved the Air Staff/MAJCOMs' strategic plans. Contractor-chosen metrics will not fulfill this purpose. Also, with Air Force-chosen metrics, the staffs will have a mechanism to identify areas requiring resources, policy, or success stories. Finally, they allow for benchmarking and its subsequent best practice identification. Targets may compare actual results to the following: a) actual last period; b) budgetary goal; c) benchmark; or d) competition.

Implementing Air Force-chosen metrics for a service contract records its "full picture." Some contractors have used their own metrics to claim full award fees even though their metrics may not necessarily benefit the Air Force. For example, if the Military Family Housing contractor set a 5-day standard for Change of Occupancy Maintenance, and then took 60 days for 20 units (for 3 average days per unit), then the contractor would claim it exceeded the standard. However, without knowing ahead of time, the housing maintenance office did not effectively use the extra time to coordinate their external efforts (e.g., Traffic Management Flight, new unit tenants, and administrative work). The Air Force would have benefited if the contractor accurately forecasted finishing the Change of Occupancy Maintenance, because then the housing maintenance office would have effectively coordinated related efforts. In this example, the contractor would have performed well according to the contractor-chosen metric but the Air Force did not receive much benefit. See Appendix F.1 and Appendix F.2 for the Military Family Housing maintenance SDS and QASP.

Should the Air Force standardize the metrics? No. A service partnership demands open communication, problem-solving, and continuous improvement between the Air Force Business Requirements and Advisory Group and the service provider. The metrics only provide information so the BRAG may achieve certain objectives. Although standardized metrics may identify the difference between best practices and different practices by reducing ambiguity in performance information, others noted the difficulty in comparing "apples-to-apples." For example, one may misinterpret a metric because definitions, standards, and performance levels differ.[29]

Metrics commonly change throughout the contract lifecycle.[30] Even with an appropriate initial metric set, new technology, enhanced strengths, emerging trends, or identified weaknesses may require changing it. Metrics also change as providers learn more about their customers. As strategic directions and priorities change, so will the metrics. Caution: If metrics need changing, ensure the revised or new metrics measure success in satisfying the customer's goals.

Performance management consultants recommend against using metrics as an accountability tool and for continuous improvement.[31] Yet commercial firms use metrics for informative and/or for incentive purposes (some firms recommend linking the metrics with award fees because otherwise the contractor will not take the metrics seriously).[32, 33] On the other hand, some customers use metrics to identify performance strengths and weaknesses and where to emphasize cost-reducing initiatives. They hesitate to link metrics to the award fees because they may over-emphasize some areas and cause unintended consequences. Another challenge may include collecting valid and reliable data (e.g., a major problem with Total Quality Management was the "pencil whipping" to achieve "good" scores[34]). One must practice caution if the contractor overachieves in one area while underachieving other areas.[35]

Interviews also addressed barriers to using performance management systems. Within public organizations, some people noted they lack financial performance measures (i.e., having no profit to measure). Other reasons included not having an efficient reporting mechanism in place, fear of knowing the real information about their performance, or lacking faith in an accurate measurement system. The most common barrier was the misperception that using contractor metrics requires more time and effort in addition to the random sampling inspections. Further reasons may include an unclear vision, short-term focus, and inability to link business planning to strategy.[36]

PERFORMANCE REVIEWS

Given the *mutual* responsibility of achieving maximum performance, performance reviews promote partnerships through open communication. Agendas typically focus on actual performance, significant improvements achieved, suggestions, budget status, savings generated, and meaningful action items. With a performance management plan, the service provider should demonstrate historical performance compared with baseline target levels. In some cases, the service provider will identify where they've missed the target. Then they will address concerns and underlying drivers. The service provider also projects future performance levels and issues. The performance review may also include dispute resolution.

Meeting frequency varies within the public and private sectors for each of the five service contracts in this study. Given contractor expertise, risk, management attention, priority, and relevance to the Air Force's strategic objectives, meeting frequency varies from daily to annually. As a general observation, those contract relationships lasting more than five years use annual performance reviews to evaluate an award fee. For more specific contract monitoring, quarterly meetings typically answer "What have you done for me lately?" During monthly meetings, partners also consider the performance baseline and recommend initiatives for improving performance. Periodic checks demonstrating the customer's attention match the quarterly and monthly meetings. Commercial and public organizations also use daily meetings for task-specific inspections. The best frequency is monthly. Weekly metrics may require more labor than necessary and quarterly metrics may take too much time between reports.

PARTNERSHIPS

The contracting officer may require a partnership agreement with the service provider. The arrangement promotes achieving mutually beneficial goals. Their agreement should contain specific goals and their objectives, metrics, meeting frequency, and cooperation. All involved parties sign the document.[37] The partnership commits to specific performance goals and they draw the communication lines, responsibility, and dispute resolution techniques. Note: Some Air Force service contracts contain a 120-day walkout clause as a trial feature to allow the Air Force a commercial "termination" feature and the provider a retreat avenue if the contractor cannot achieve the performance levels.

Some contracting officers, contract specialists, quality assurance personnel, and contract managers have stated they anticipate the partnership but have not received direction to use it. If they were directed to establish a partnership, their general consensus rests on having mutually beneficial goals and having several contractors within the same partnership to streamline objectives and efforts.

A CONTRACTING OFFICER AS A BUSINESS ADVISOR

In order to participate as a business advisor during contract administration, the contracting officer (or delegated contract specialist) must address the contractor's performance management. Addressing contractor performance requires a functional knowledge about the contract. It is necessary to understand the contributing factors for each metric. Contract metrics provide information to identify problem areas and strengths. For example, service providers may categorize the complaints in a Pareto diagram, thus identifying those problems requiring the most attention. A Pareto diagram illustrates the which category (in this case, which complaint) is most frequent. See Appendix B.2 for an example using a Pareto method on a custodial contract.

The metrics, and knowledge about them, also assist in identifying best practices. In order to impart practical insight for achieving better performance, the business advisor must first know the objective performance information. By comparing the information to practices with better performance information, the advisor could then better serve the provider with insight. In essence, the business advisor identifies a best (or better) practice. Without performance information, consider how one might label a practice as "best" without any objective criteria to merit the label. In these cases, a "best" practice differs from a "different" practice.

To prevent this, service metrics may offer benchmarking as an added capability to contract surveillance. Benchmarking efforts typically investigate work processes as they compare costs associated with either customer satisfaction or performance levels.[38] These efforts gather best practices, generate new ideas, assist in strategic planning, aid goal-setting, provide information

for allocating resources, and establish current performance information.[39] Some compare productivity level to service level while also reflecting cost information in order to obtain best practice information.[40] The best practices may focus on opportunities in organization structure, processes, service level standards, technology, customer relationship management, culture, skills and experience, and contract management.[41]

In addition to identifying strengths and weaknesses, managers commonly use performance management for accountability, public reporting, and program advocacy.[42] On the other hand, internal uses may include strategic planning, process evaluation, operational control, and performance appraisals. Decision makers use performance management for two main purposes: change management and business management.[43] For changing the business, they track trend data and measure vision accomplishment according to targets. For sustaining business operations, they focus on successes and gap analysis while measuring inputs, outputs, and outcomes. Either way, the Air Force shares the outcome's success or failure.

CUSTOMER COMPLAINTS

For sufficient feedback, surveys must show reasons for customer dissatisfaction. However, most customers do not complain or express their satisfaction or even dissatisfaction.[44] Additionally, most firms use quarterly or annual customer feedback surveys, thus leaving the customer much time to reconcile the complaint before responding to the survey.[45] At best, some firms monitor customer complaints at least monthly.[46]

Therefore, measuring the total number of complaints may cause misleading analysis. This information does not indicate why respondents are complaining, and therefore this indicator does not effectively support the customer-focus objective. Also, in considering the total number of complaints, one may expect an initial spike (i.e., the first month) and subsequent spikes when one encourages facility managers to use the complaint system. Besides, providers typically receive a low response rate. Further, QAs and facilities managers mentioned having "complaint burnout"—they complained about problems in the past without resolution and therefore they will not complain again. Therefore, using only a total number of complaints metric would cause more questions than answers. Rather, the business advisor should consider the underlying cause and strive to prevent recurring complaints. Essentially, the customer complaint provides data to learn more about customer needs and expectations—not an achievement score.[47]

In addition to identifying the provider's problem areas, customer complaint systems should begin concentrating on the customer. A high number of non-valid customer complaints recurs for each service contract in this study. For example, the facility manager complains about cleaning services not performed on Tuesday when in fact the custodial contractor was required to clean on Wednesday. In this regard, the customer does not know (or remember) the Service Delivery Summary for his or her facility. As non-valid complaints could represent a problem area, QAs have indicated their preference to quantify the percentage of non-valid complaints of the total complaints received.

THE TRADITIONAL AIR FORCE CUSTOMER COMPLAINT PROCESS

For unacceptable services, a base employee, MFH resident, or QA may initiate a customer complaint. Once notified, the QA fills out an *AF Form 714, Customer Complaint Record.* A complaint is valid once received and documented on the form. The QA informs the customer the approximate time to correct the defect. (The customer must notify the QA for uncorrected defects.) Then the QA forwards the complaint to the contractor's Quality Control Inspector (QCI). The QCI may disagree with the complaint after inspecting the site. If so, the QA inspects the defect and then notifies the customer for non-valid complaints. If the QA identifies a valid complaint, then the QA notifies the QCI to correct the defect. Then the QA documents the incident as a QCI's failure to recognize a valid customer complaint. The QCI returns the *AF Form 714*, complete with the actions taken, to the evaluator who files the complaint for future reference.

Data integrity, a primary concern, becomes suspect when the customer complaint system includes more layers in the complaint handling and review process. People may act as filters which may either reduce the number of complaints, change the complaints from the original cause to an assumed cause, or even delay the total response time to the complaint. Automated reporting (e.g., an intranet) allows easily accessible data and reduces the number of filters involved in forwarding information.[48, 49] Therefore, these systems reduce decision time while providing the necessary information.[50]

A REVOLUTIONARY CUSTOMER COMPLAINT APPROACH

As a means towards reducing the number of non-valid complaints and providing more efficient communication to the contractor manager, one installation automated their custodial and refuse collection contracts with web-enabled technology. A hyperlink from the installation's homepage provides facility managers information such as their facility's Service Delivery Summary (SDS), service frequency, and each task's service level. The site also contains a form for entering customer complaints. This form facilitates the customer complaint because the customer actually chooses from a pre-determined complaint list for the appropriate cause of customer dissatisfaction (the customer may also enter comments). Once the customer submits a complaint, the QCI automatically receives the information into a database for quality analysis. This automation eliminates those complaints from the civil engineering customer service desk and QA workload. The service provider does not need to spend extra time collecting customer complaints and then synthesizing the results into a report—the web site updates complaint information with each new incoming complaint. Therefore, the QA and contract specialist still have the necessary performance information provided to them in order to provide insight towards continuous improvement.

CHANGING THE SURVEILLANCE APPROACH

Because *AFI 63-124* has only been implemented since 1 Apr 99, some contracts are still compliant with *AFM 64-108, Service Contracts*. Therefore, contracting officers have several options in implementing new surveillance methods (e.g., contractor metrics). The following table shows several options and their advantages and disadvantages:

Option	Advantages	Disadvantages
Wait Until New Award; Incorporate as Contract Data Requirements List (CDRL)	• The CDRL is an easily identifiable list of required reports (i.e., metrics). • Offerors may provide comments on a draft. • Offerors may build the costs into their proposal.	• Evolving metrics require further contract modifications. • Contractors may submit cost claims for changes in metrics. • Waiting until awarding the new contract may last as long as 4 years.
Wait Until New Award; Incorporate as part of Quality Assurance Surveillance Plan (QASP)	• Stipulates/ensures receiving metrics from the start of contract performance. • Offers "changes" flexibility. • Offerors may provide comments on a draft. • Offerors may build the costs into their proposal. • Contractors do not submit cost claims for changes in	• Waiting until awarding the new contract may last as long as 4 years.

	contract surveillance.	
Modify Existing Contract	• Faster implementation than waiting for the new award. • Stipulates/ensures receiving metrics.	• The contractor may submit a claim for additional work. • Evolving metrics require further modifications. Cost may exceed benefit if the contract is in its 3rd or 4th year.
Incorporate Into Partnership Agreement	• Fosters partnering. • Offers flexibility. • Contractor "agrees" to the surveillance technique. • Faster implementation than waiting for the new award.	• One may not exist for that contract; however, perhaps it's time to create one. • May lack Contracting Officer's unilateral decision. • May be a weak a surveillance method.
Introduce As Performance Review Agenda	• Quick implementation. • Fosters partnering. • Offers flexibility. • Contractor "agrees" to the surveillance technique.	• Does not ensure you'll receive the information. • May lack Contracting Officer's unilateral decision. • May be a weak surveillance method.

PERFORMANCE PENALTIES

Quality Assurance personnel raised a common concern: With contractor metrics, what happens to performance penalties and Contract Discrepancy Reports (CDRs)? They still have the avenue of having the contractor re-perform the service (otherwise not paying for that particular service).

Also, they still have the option of documenting CDRs for justifying whether or not to exercise an option and past performance information for future source selections.

One contractor manager perceived the contractor metrics as a means towards reporting defects, and thus automatic CDRs. The QA addressed the issue by underscoring the importance of their partnership rather than focusing on whom to blame for their faults. The contractor was then willing to provide metrics at no cost. Besides, the contractor mentioned, a performance deduction threat is not necessarily a motivator towards achieving maximum performance.

This Page Intentionally Left Blank

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

The metrics are tools for identifying problem areas, benchmarking, and further researching best practices. Metrics are well suited for recognizing and advocating the contractor manager's power to motivate line employees towards continuous improvement.

The metrics don't achieve maximum performance—the contractor line employees, contractor managers, QAs, contracting officers, contract specialists, QAPCs, functional commanders, and contracting squadron commanders achieve it. Together, they make the performance management team. They should determine the metrics through buy-in and tailor the metrics according to the Air Staff's or MAJCOM's strategy. They should also allow the metrics to evolve as necessary. The following questions are useful in determining which metrics to select:

- What priority am I serving in using my time for this metric?
- Why should I take the time to collect and report the metrics?
- How does this help me in my daily operations as QA, dining facility manager, solid waste manager, etc.?
- How will I have the authority to act or make decisions according to these metrics?

In terms of measuring the service contract's health and focusing attention towards continuous improvement, the performance management team should treat the recommended metrics as a baseline to facilitate the change. Within this team, Functional Directors and their QAs may offer better indicators, have different objectives, or have different performance areas. They may also require receiving more metrics demonstrating their contractors' own quality control systems. Metrics will evolve as personnel actively use, further develop, and refine them to solve problems. The functional customer may or may not desire to automate the customer complaint system.

Contractor metrics are best handled if they are included within the Quality Assurance Surveillance Plan in addition to other surveillance methods. A baseline should be established during the first several months and a performance target may be identified. This considers the transitory nature of having never collected the information to building it into the contract as a performance requirement. Using contractor metrics requires other complementing surveillance methods to validate performance. Although using the contractor metrics will save time compared to the random sampling approach, the metrics cannot capture every contract requirement.

Reviewing the recommended metrics at least monthly if not otherwise noted is best suited for the performance management team. Weekly (or even biweekly) metrics may require too much labor and attention. Quarterly metrics may lose their capability of affecting change because of the time delay.

RECOMMENDATIONS

1) Provide the Service Delivery Summaries (SDSs) and Quality Assurance Surveillance Plans (QASPs) to the Quality Assurance Program Coordinators (QAPCs) at all operational contracting squadrons. (OPR: AFLMA/LGC) The QAPCs should consider using the metrics as a tool for identifying problem areas, benchmarking, and further researching best practices. See Appendix A.1 through Appendix G.2 for the metrics.

2) In terms of measuring the service contract's health and focusing attention towards continuous improvement, treat the recommended metrics as a baseline to facilitate the change.

3) Allow installations to use the metrics and modify accordingly to suit their installation's mission and objectives. Do not mandate using these as contractor metrics.

DISTRIBUTION: Refer to attached *Standard Form 298.*

APPENDIX A.1

SERVICE DELIVERY SUMMARY (SDS), ALL SERVICE CONTRACTS

Performance Objective	**SOW para**	**Performance Standard ***
Maintain Sustained Workforce	Human Resources Vitality	Employee Churn Rate
Generate Innovative solutions	Suggestion Program (Partnership)	Number Of Suggestions Made
Generate And Implement Innovative Solutions	Suggestion Program (Partnership)	% Of Suggestions Implemented
Maintain Healthy Workforce	Human Resources Vitality	Number Of Equal Employment Opportunity Violations
Maintain Competent Workforce	Human Resources Vitality	Training Hours (Total Number Of Hours / Total Number Of Employees)
OSHA/AFOSH Compliance	Safety	Number Of OSHA Or AFOSH Citations (*AFI 91-301*; *AFI 91-302*; *AFPD 91-3*)
OSHA/AFOSH Compliance	Safety	Number Of Occupational Illnesses And Injuries Resulting In Lost Days (*AFI 91-301*, *AFI 91-302*; *AFPD 91-3*)
Subcontracting Assistance For Socioeconomic Goals	Socioeconomic	% Of Subcontract Dollars Done With Small Businesses, Minority-Owned, And Women-Owned Businesses
Compliance With Base Traffic Regulations	Safety	Running Total Of Traffic Tickets (e.g., Speeding, Accidents, Parking, Seatbelts)

Fire Prevention	Safety	Number Of Workers Who Have NOT Received At Least 2 Hours Of Fire Training Per Year (*AFI 32-2001*)
Installation Security Compliance	Security	Number Of Workers Who Do NOT Possess Proper Identification

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

APPENDIX A.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), ALL SERVICE CONTRACTS

Description of Services

1. Performance Requirement: Maintain Sustained Workforce (Human Resources Vitality)

Performance Standard: Employee Churn Rate

Method of Surveillance: Add the number of employees hired for the job during the month. Provide the total number of people who left (quit, retire, separated, removed from being assigned, etc.). Divide the total number of people who quit by the total number of employees on station that month. This is the overall churn rate. This measurement is a snapshot in time.

2. Performance Requirement: Generate Innovative solutions [Suggestion Program (Partnership)]

Performance Standard: Number Of Suggestions Made

Method of Surveillance: Suggestions could focus on initiatives in reducing costs, saving time, achieving efficiencies and greater effectiveness, and providing higher customer service levels. Suggestions may reflect improvements in technology, quality, customer responsiveness, delivery, cost, and environmental issues. Suggestions are not too minor or trivial to consider. They are communicated within the partnership, not contained within the contractor's side. Suggestions may be communicated by letter, phone, fax, e-mail, and face-to-face. Consider this metric with the "Implementing Suggestions" metric.

3. Performance Requirement: Generate And Implement Innovative Solutions [Suggestion Program (Partnership)]

Performance Standard: % Of Suggestions Implemented

Method of Surveillance: Either the contractor or a Air Force representative may implement a suggestion. Suggestions could focus on initiatives in reducing costs, saving time, achieving efficiencies and greater effectiveness, and providing more customer service. Suggestions are not too minor or trivial to consider. They are communicated within the partnership, not contained within the contractor's side. Suggestions may be communicated by letter, phone, fax, e-mail, and face-to-face. Suggestions may reflect improvements in technology, quality, customer

responsiveness, delivery, cost, and environmental issues. Consider this metric with the "Generating Suggestions" metric.

4. Performance Requirement: Maintain Healthy Workforce (Human Resources Vitality)

Performance Standard: Number Of Equal Employment Opportunity Violations

Method of Surveillance: Equal Employment Opportunity violations may include discrimination against race, sex, religion, creed, and/or ethnic origin.

5. Performance Requirement: Maintain Competent Workforce (Human Resources Vitality)

Performance Standard: Training Hours (Total Number Of Hours / Total Number Of Employees)

Method of Surveillance: Add the total number of training hours conducted during the month. Divide total number of hours by total number of employees on record for that month.

6. Performance Requirement: OSHA/AFOSH Compliance (Safety)

Performance Standard: Number Of OSHA Or AFOSH Citations (*AFI 91-301*; *AFI 91-302*; *AFPD 91-3*)

Method of Surveillance: Provide the number of OSHA or AFOSH citations issued and the reason for citation.

7. Performance Requirement: OSHA/AFOSH Compliance (Safety)

Performance Standard: Number Of Occupational Illnesses And Injuries Resulting In Lost Days (*AFI 91-301, AFI 91-302*; *AFPD 91-3*)

Method of Surveillance: Given the number of reported OSHA or AFOSH-issued safety citations, record the number of lost work days due to occupational illness or occupational injuries throughout the month.

8. Performance Requirement: Subcontracting Assistance For Socioeconomic Goals (Socioeconomic)

Performance Standard: % Of Subcontract Dollars Done With Small Businesses, Minority-Owned, And Women-Owned Businesses

Method of Surveillance: Calculate the total subcontracting dollar amount for the month. Break out the subcontracting into the categories listed above. If you are unsure of the subcontractor business category, then contact the Contracting Officer. Divide the total of socioeconomic dollars into the total subcontracting dollars. Multiply by 100.

9. Performance Requirement: Compliance With Base Traffic Regulations (Safety)

Performance Standard: Running Total Of Traffic Tickets (e.g., Speeding, Accidents, Parking, Seatbelts)

Method of Surveillance: Provide the running total of traffic tickets received on base throughout the year. Also provide comments as to the type of violation. Violations may include speeding, parking, accidents, seatbelts, and weapons on base.

10. Performance Requirement: Fire Prevention (Safety)

Performance Standard: Number Of Workers Who Have NOT Received At Least 2 Hours Of Fire Training Per Year (*AFI 32-2001*)

Method of Surveillance: Add the total number of persons who have not received fire training. The installation Fire Chief's office schedules and conducts the training.

11. Performance Requirement: Installation Security Compliance (Security)

Performance Standard: Number Of Workers Who Do NOT Possess Security Markings

Method of Surveillance: Security markings may include a personal identification tag and/or a vehicle pass.

This Page Intentionally Left Blank

APPENDIX B.1

SERVICE DELIVERY SUMMARY (SDS), CUSTODIAL CONTRACT

Performance Objective	SOW para	Performance Standard *
Prevent Recurring Complaints	Customer Responsiveness	Pareto Diagram Of Complaint Causes And Action(s) Taken
Resolve Complaints	Customer Responsiveness	% Of Contractor-Made Follow Up Calls
Customers Know Valid From Non-valid Complaints	Customer Responsiveness	% Of Valid Complaints Of Total Received
Contractors Have Appropriate Training	Training	Number Of Workers Who Have NOT Received Appropriate Training

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

This Page Intentionally Left Blank

APPENDIX B.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), CUSTODIAL CONTRACT

Description of Services

1. Performance Requirement: Prevent Recurring Complaints (Customer Responsiveness)

Performance Standard: Pareto Diagram Of Complaint Causes And Action(s) Taken

Method of Surveillance: Provide a monthly classification of complaints received. Sort the complaints from highest number received to the lowest.

* Classification may include the following for a Pareto Diagram:

General

Floors not vacuumed
Floors not swept or mopped
Floors not buffed
Computer room floor not cleaned
Carpet not vacuumed
No dusting
Office trash can(s) not emptied
Building not serviced at all
Building not serviced on time
Building not serviced on appropriate date
Interior glass/mirrors not cleaned
Drinking fountains not cleaned
Stairways not cleaned
Walk-off mats not cleaned
Other

Bathrooms

No paper towels
Trash can(s) not emptied
Missing toilet paper
Toilets not cleaned
Sinks not cleaned

2. Performance Requirement: Resolve Complaints (Customer Responsiveness)

Performance Standard: % Of Contractor-Made Follow Up Calls

Method of Surveillance: Provide the number of complaints received, number of contractor-initiated follow-up calls, and the contractor management action taken. Provide the percentage of follow-up calls to complaints received.

3. Performance Requirement: Customers Know Valid From Non-valid Complaints (Customer Responsiveness)

Performance Standard: % Of Valid Complaints Of Total Received

Method of Surveillance: Take the total number of complaints received. Then identify which complaints are non-valid. A non-valid complaint is one the QA decides is non-valid. For example, the customer complains about not receiving services when in fact the service is not within the contract. Divide the number of non-valid complaints by the total number of complaints.

4. Performance Requirement: Contractors Have Appropriate Training

Performance Standard: Number Of Workers Who Have NOT Received Appropriate Training

Method of Surveillance: Training may include On-the-Job Training (OJT) and/or employee orientation.

APPENDIX C.1

SERVICE DELIVERY SUMMARY (SDS), FULL FOOD SERVICE CONTRACT

Performance Objective	**SOW para**	**Performance Standard ***
Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program	Hennessy Program Participation—Single Dining Facility Location (If Applicable)	Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*
Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program	Hennessy Program Participation—Multiple Dining Facility Location (If Applicable)	Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*
Perform Base-Line And Benchmarking Analyses Of Earned Income	Generating Revenue	Earned Income
Encourage Consumption of Flight Meals	Flight Meals	Earned Income on Flight Meals
Maintain Cumulative Gain (Loss) Under Tolerance	Net Issues to Kitchen	Cumulative Gain (Loss)
Serve Meals IAW Worldwide Menu System	Worldwide Menu Compliance	Number Of Meals NOT In Compliance With Worldwide Menu
Customers Know Valid From Non-valid Complaints	Customer Responsiveness	% Of Valid Complaints Of Total Received
Food Handling Compliance Training [Directed By Director Of Base Medical Services (DBMS)]	Sanitation	Number Of Personnel Having NOT Attended Food Handlers Training
Fast Response Time to Major and Minor Equipment Repair	Emergency, Urgent, and Routine—Response	Emergency: Number Of Responses Outside 1-Hour Standard Urgent: Number Of Responses Outside 12-Hour Standard Routine: Number Of Responses Outside 24-Hour Standard

Fast Completion Time to Major and Minor Equipment Repair	Emergency, Urgent, and Routine—Completion	Emergency: Number Of Completions Outside Of 24-Hour Standard Urgent: Number Of Completions Outside Of 48-Hour Standard Routine: Number Of Completions Outside Of 96-Hour Standard

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

APPENDIX C.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), FULL FOOD SERVICE CONTRACT

Description of Services

1. Performance Requirement: Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program

Performance Standard: Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*

Method of Surveillance: Once each month, agree on a randomly-selected date and meal period for conducting a Hennessy evaluation. The contractor rates the dining facility (or multiple facilities) by using the *AF Form 1038* and scoring guidelines. Also, the QA rates the dining facility (or multiple facilities) by using the *AF Form 1038* and scoring guidelines. See the next worksheet (entitled "Hennessy Guidelines") for the scoring system. Match up objectives within each rating sheet. Identify those areas having the largest variances. Identify those areas having mutual agreement of relatively low score. Identify those areas having mutual agreement of relatively high score. Discuss the variances, mutual-low, and mutual-high objectives during performance review.

2. Performance Requirement: Perform Base-Line And Benchmarking Analyses Of Earned Income (Generating Revenue)

Performance Standard: Earned Income

Method of Surveillance: Use *AF Form 249, Food Service Operations Report* to identify the Total Earned Income. This may include SIK, Cash, MREs, and Satellites.

3. Performance Requirement: Encourage Consumption of Flight Meals

Performance Standard: Earned Income on Flight Meals

Method of Surveillance: Use *AF Form 467, Monthly Summary of Flight/Special Meals* to obtain the monthly Total Earned Income. Divide the Total Earned Income by the month's open

business days. Divide the Total Earned Income by the month's open business days for an average earned income per day (flight meals).

4. Performance Requirement: Maintain Cumulative Gain (Loss) Under Tolerance (Net Issues to Kitchen)

Performance Standard: Cumulative Gain (Loss)

Method of Surveillance: The purpose of this metric is to keep inventory balances at a minimum. *Use AF Form 1119, Monthly Monetary Record* to identify the Adjusted Gain (Loss). The Adjusted Gain (Loss) is an end-of-month inventory balance. The Adjusted Gain (Loss) is combined with the Carry Over Last Month to yield the Cumulative Gain (Loss). The 2% Tolerance is applied on Earned Income to yield an Authorized 2% Tolerance. The objective is to maintain the Cumulative Gain (Loss) within the Authorized 2% Tolerance.

5. Performance Requirement: Serve Meals IAW Worldwide Menu System

Performance Standard: Number Of Meals NOT In Compliance With Worldwide Menu

Method of Surveillance: *AF Form 662* is used to denote worldwide menu compliance. FSO approves substitutes as compliance with the menu. HQ AFSVA approves local recipes.

6. Performance Requirement: Customers Know Valid From Non-valid Complaints (Customer Responsiveness)

Performance Standard: % Of Valid Complaints Of Total Received

Method of Surveillance: Take the total number of complaints received. Then identify which complaints are non-valid. A complaint is defined as a written comment on the customer comment card. (Face-to-face complaints are usually resolved at the time of management-customer interaction.) Divide the number of non-valid complaints by the total number of complaints. If reasonable, track the different kinds of complaints to see if trends have developed.

7. Performance Requirement: Food Handling Compliance Training [Directed By Director Of Base Medical Services (DBMS)] (Sanitation)

Performance Standard: Number Of Personnel Having NOT Attended Food Handlers Training

Method of Surveillance: Once management personnel have been appropriately trained, they may train their personnel.

8. Performance Requirement: Fast Response Time to Major and Minor Equipment Repair

Performance Standard: Emergency: Number Of Responses Outside 1-Hour Standard
Urgent: Number Of Responses Outside 12-Hour Standard
Routine: Number Of Responses Outside 24-Hour Standard

Method of Surveillance: Record the item and actual response time and completion time and then compare to the time standards. Response time is defined as the time from contractor manager notification to initial action (phone call, site visit, etc.).

9. Performance Requirement: Fast Completion Time to Major and Minor Equipment Repair

Performance Standard: Emergency: Number Of Completions Outside Of 24-Hour Standard
Urgent: Number Of Completions Outside Of 48-Hour Standard
Routine: Number Of Completions Outside Of 96-Hour Standard

Method of Surveillance: Record the item and actual response time and completion time and then compare to the time standards. Completion time is defined as the time from contractor manager notification to when the work is complete.

This Page Intentionally Left Blank

APPENDIX D.1

SERVICE DELIVERY SUMMARY (SDS), MESS ATTENDANT CONTRACT

Performance Objective	**SOW para**	**Performance Standard ***
Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program	Hennessy Program Participation—Single Dining Facility Location (If Applicable)	Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*
Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program	Hennessy Program Participation—Multiple Dining Facility Location (If Applicable)	Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*
Perform Base-Line And Benchmarking Analyses Of Earned Income	Generating Revenue	Earned Income
Encourage Consumption of Flight Meals	Flight Meals	Earned Income on Flight Meals
Customers Know Valid From Non-valid Complaints	Customer Responsiveness	% Of Valid Complaints Of Total Received
Food Handling Compliance Training [Directed By Director Of Base Medical Services (DBMS)]	Sanitation	Number Of Personnel Having NOT Attended Food Handlers Training

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

This Page Intentionally Left Blank

APPENDIX D.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), MESS ATTENDANT CONTRACT

Description of Services

1. Performance Requirement: Perform Base-Line And Benchmarking Analyses Of *AF Form 1038* For Hennessy Program

Performance Standard: Average Score Between The Total Scores Of Contractor-Rated And Air Force-Rated *AF Forms 1038*

Method of Surveillance: Once each month, agree on a randomly-selected date and meal period for conducting a Hennessy evaluation. The contractor rates the dining facility (or multiple facilities) by using the *AF Form 1038* and scoring guidelines. Also, the QA rates the dining facility (or multiple facilities) by using the *AF Form* 1038 and scoring guidelines. See the next worksheet (entitled "Hennessy Guidelines") for the scoring system. Match up objectives within each rating sheet. Identify those areas having the largest variances. Identify those areas having mutual agreement of relatively low score. Identify those areas having mutual agreement of relatively high score. Discuss the variances, mutual-low, and mutual-high objectives during performance review.

2. Performance Requirement: Perform Base-Line And Benchmarking Analyses Of Earned Income (Generating Revenue)

Performance Standard: Earned Income

Method of Surveillance: Use *AF Form 249*, Food Service Operations Report to identify the Total Earned Income. This may include SIK, Cash, MREs, and Satellites. Divide the Total Earned Income by the month's open business days for an average earned income per day.

3. Performance Requirement: Encourage Consumption of Flight Meals

Performance Standard: Earned Income on Flight Meals

Method of Surveillance: Use *AF Form 467*, Monthly Summary of Flight/Special Meals to obtain the monthly Total Earned Income. Divide the Total Earned Income by the month's open

business days. Divide the Total Earned Income by the month's open business days for an average earned income per day (flight meals).

4. Performance Requirement: Customers Know Valid From Non-valid Complaints (Customer Responsiveness)

Performance Standard: % Of Valid Complaints Of Total Received

Method of Surveillance: Take the total number of complaints received. Then identify which complaints are non-valid. A complaint is defined as a written comment on the customer comment card. (Face-to-face complaints are usually resolved at the time of management-customer interaction.) Divide the number of non-valid complaints by the total number of complaints. A non-valid complaints is one the QA decides in non-valid (for example, the complaint is about something outside the contract.) If reasonable, track the different kinds of valid complaints to see if trends have developed.

5. Performance Requirement: Food Handling Compliance Training [Directed By Director Of Base Medical Services (DBMS)] (Sanitation)

Performance Standard: Number Of Personnel Having NOT Attended Food Handlers Training

Method of Surveillance: Once management personnel have been appropriately trained, they may train their personnel.

APPENDIX E.1

SERVICE DELIVERY SUMMARY (SDS), GROUNDS MAINTENANCE CONTRACT

Performance Objective	SOW para	Performance Standard *
Prevent Recurring Complaints	Customer Responsiveness	Pareto Diagram Of Complaint Causes And Action(s) Taken*
Resolve Complaints	Customer Responsiveness	% Of Complaints Resolved After Contractor Correction
Customers Know Valid From Non-valid Complaints	Customer Responsiveness	% Of Valid Complaints Of Total Received
Provide High-Quality Special Visit Preparation	Distinguished Visitors	Recognition From Special Visit Preparations

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

This Page Intentionally Left Blank

APPENDIX E.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), GROUNDS MAINTENANCE CONTRACT

Description of Services

1. Performance Requirement: Prevent Recurring Complaints (Customer Responsiveness)

Performance Standard: Pareto Diagram Of Complaint Causes And Action(s) Taken*

Method of Surveillance: Provide a monthly classification of complaints received. Sort the complaints from highest number received to the lowest.

* Classification may include the following for a Pareto Diagram:

BASH compliance (not short enough around the flightline)
BASH compliance (not long enough around the flightline)
Did not perform edging
Trimming from edging was left on the grounds
Weeds
Did not mow the grass
Sprinklers went off at the wrong time
Lawn not uniformly green
Sprinklers went off in the wrong directions
Snow removal (if applicable)
Too much puddling (due to thatch buildup)
Pruning trees
Using too much water
Pruning shrubs
Drainage (not enough culverts)
Litter patrol
Other

2. Performance Requirement: Resolve Complaints (Customer Responsiveness)

Performance Standard: % Of Complaints Resolved After Contractor Correction

Method of Surveillance: Provide the number of complaints received, number of contractor-initiated follow-up calls, and the contractor management action taken. Provide the percentage of follow-up calls to complaints received.

3. Performance Requirement: Customers Know Valid From Non-valid Complaints (Customer Responsiveness)

Performance Standard: % Of Valid Complaints Of Total Received

Method of Surveillance: Take the total number of complaints received. Then identify which complaints are non-valid. A non-valid complaint is one the QA decides is non-valid. For example, the customer complains about not receiving services when in fact the service is not within the contract. Divide the number of non-valid complaints by the total number of complaints. A non-valid complaints is one the QA decides in non-valid (for example, the complaint is about something outside the contract.)

4. Performance Requirement: Provide High-Quality Special Visit Preparation (Distinguished Visitors)

Performance Standard: Recognition From Special Visit Preparations

Method of Surveillance: Record the number of compliments received, who gave it, and why was it given. If an Air Force representative (for example, inspector or contract specialist) receives the compliment, he or she should then forward it to the contractor.

APPENDIX F.1

SERVICE DELIVERY SUMMARY (SDS), MILITARY FAMILY HOUSING (MFH) MAINTENANCE CONTRACT

Performance Objective	SOW para	Performance Standard *
Vacancy Is Limited To 3 – 5 Days; Contractor Has Excellent Forecasting Ability	COM Program	% Comparison Between Aggregate # Days Forecasted Vs Aggregate # Days Actual
Minimize Average Actual Maintenance Downtime (AAMD)	COM Program	Monthly Sum Of Downtime For All Units In Contractor's Custody Divided By # Of Units In Lot
Minimize Unacceptable Percentage (UP) Of COM	COM Program	Percentage Of Unready MFH Units At Time Of Inspection Per Month
Fast Response to Service Calls	Emergency, Urgent, and Routine—Response	Emergency: % Of Responses Outside 1-Hour Standard Urgent: % Of Responses Outside 24–Hour Standard Routine: % Of Responses Outside 5–Day Standard
Fast Completion to Service Calls	Emergency, Urgent, and Routine—Completion	Emergency: % Of Completion Outside 24-Hour Standard Urgent: % Of Completion Outside 5–Day Standard Routine: % Of Completion Outside 30–Day Standard
Current And Valid Freon Recovery Systems Certification	Certifications	Number Of Workers NOT Having Appropriate Freon Certification
Current And Valid Lead-Based Paint And Asbestos	Training	Number Of Workers NOT Certified In Lead-Based Paint And Asbestos Handling

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

APPENDIX F.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), MILITARY FAMILY HOUSING (MFH) MAINTENANCE CONTRACT

Description of Services

1. Performance Requirement: Vacancy Is Limited To 3 – 5 Days; Contractor Has Excellent Forecasting Ability (COM Program)

Performance Standard: % Comparison Between Aggregate # Days Forecasted Vs Aggregate # Days Actual

Method of Surveillance: Contractor submits COM estimate for each unit on the *AF Form 1219*, BCE Multi-Craft Job Order. Once each month, the contractor adds up the total number of forecasted days. The contractor also adds up the total number of actual days taken to complete those units. Chart this percentage over time.

2. Performance Requirement: Minimize Average Actual Maintenance Downtime (AAMD) (COM Program)

Performance Standard: Monthly Sum Of Downtime For All Units In Contractor's Custody Divided By # Of Units In Lot

Method of Surveillance: At the end of each month, the contractor adds up the total number of days housing units were in custody. This number is divided by the number of housing units held in custody for an average actual maintenance downtime. Compare to the total downtime allowed for COM work in a housing unit. Chart these numbers over time.

3. Performance Requirement: Minimize Unacceptable Percentage (UP) Of COM (COM Program)

Performance Standard: Percentage Of Unready MFH Units At Time Of Inspection Per Month

Method of Surveillance: At the end of each month, calculate the percentage of unready houses at the time of COM inspection. It is up to the inspector to determine if a unit is ready or unready at inspection time. Chart this percentage over time.

4. Performance Requirement: Fast Response to Service Calls (Emergency, Urgent, and Routine)

Performance Standard: Emergency: % Of Responses Outside 1-Hour Standard
Urgent: % Of Responses Outside 24–Hour Standard
Routine: % Of Responses Outside 5–Day Standard

Method of Surveillance: A response is defined as the time from when the contractor is notified until actually arriving at the unit. A completion is defined as the time from when the contractor was notified until the work has been complete. Service calls are categorized as either emergency, urgent, or routine calls.

5. Performance Requirement: Fast Completion to Service Calls (Emergency, Urgent, and Routine)

Performance Standard: Emergency: % Of Completion Outside 24-Hour Standard
Urgent: % Of Completion Outside 5–Day Standard
Routine: % Of Completion Outside 30–Day Standard

Method of Surveillance: A response is defined as the time from when the contractor is notified until actually arriving at the unit. A completion is defined as the time from when the contractor was notified until the work has been complete. Service calls are categorized as either emergency, urgent, or routine calls.

6. Performance Requirement: Current And Valid Lead-Based Paint And Asbestos (Training)

Performance Standard: Number Of Workers NOT Certified In Lead-Based Paint And Asbestos Handling

Method of Surveillance: Identify the number of workers NOT trained and certified in both asbestos and lead-based paint abatement. Workers may belong to the contractor and/or subcontractor(s).

7. Performance Requirement: Current And Valid Freon Recovery Systems Certification (Certifications)

Performance Standard: Number Of Workers NOT Having Appropriate Freon Certification

Method of Surveillance: Identify the number of workers NOT trained and certified in Freon. Workers may belong to the contractor or subcontractor(s).

APPENDIX G.1

SERVICE DELIVERY SUMMARY (SDS), REFUSE AND RECYCLING CONTRACT

Performance Objective	SOW para	Performance Standard *
Prevent Recurring Complaints	Customer Responsiveness	Pareto Diagram Of Complaint Causes And Action(s) Taken*
Resolve Complaints	Customer Responsiveness	% Of Complaints Resolved After Contractor Correction
Customers Know Valid From Non-valid Complaints	Customer Responsiveness	% Of Valid Complaints Of Total Received
Achieve Diversion Rate By Promoting Recycling	Solid Waste Reduction	Total Amount Recycled / (Total Amount Recycled Plus Total Amount Disposed)

* Performance Standard (threshold) will vary according to mission needs and the functional's direction.

This Page Intentionally Left Blank

APPENDIX G.2

QUALITY ASSURANCE SURVEILLANCE PLAN (QASP), REFUSE AND RECYCLING CONTRACT

Description of Services

1. Performance Requirement: Prevent Recurring Complaints (Customer Responsiveness)

Performance Standard: Pareto Diagram Of Complaint Causes And Action(s) Taken*

Method of Surveillance: Provide a monthly classification of complaints received. Sort the complaints from highest number received to the lowest.

* Classification may include the following for a Pareto Diagram:

General

Too much noise
Personnel Attitude
The pickup time (recycling and/or trash) was changed and I was not informed

Military Family Housing (MFH) Trash Bins

MFH trash bin not picked up at all
Didn't pick up all of the trash
MFH trash bin not picked up on time
Trash left around the MFH trash bin
Odor around MFH trash bins
Trash bin lid not closed
Not placing MFH trash bin upright
Trash bin was missing
Would a pick up on a different day
Other

Dumpsters

Dumpster not picked up on time
Trash left around the dumpster
Odor around dumpsters
Dumpster was too full
Lid not closed
Dumpster was not picked up at all
Didn't pick up all of the trash
Would like trash picked up on different day
Other

Military Family Housing (MFH) Recycling Bins

MFH recycling bin not picked up at all
Did not pick up all of the recycling
MFH recycling bin not picked up on time
Debris left around the MFH recycling bin
Odor around MFH recycling bins
Recycling bin lid not closed
Not placing MFH recycling bin upright
Recycling bin was missing
Would like pick up on a different day
Other

2. Performance Requirement: Resolve Complaints (Customer Responsiveness)

Performance Standard: % Of Complaints Resolved After Contractor Correction

Method of Surveillance: Provide the number of complaints received, number of contractor-initiated follow-up calls, and the contractor management action taken. Provide the percentage of follow-up calls to complaints received.

3. Performance Requirement: Customers Know Valid From Non-valid Complaints (Customer Responsiveness)

Performance Standard: % Of Valid Complaints Of Total Received

Method of Surveillance: Take the total number of complaints received. Then identify which complaints are non-valid. A non-valid complaint is one the QA decides is non-valid. For example, the customer complains about not receiving services when in fact the service is not within the contract. Divide the number of non-valid complaints by the total number of complaints.

4. Performance Requirement: Achieve Diversion Rate By Promoting Recycling (Solid Waste Reduction)

Performance Standard: Total Amount Recycled / (Total Amount Recycled Plus Total Amount Disposed)

Method of Surveillance: Divide the Total Amount Recycled by the Total Amount Recycled Plus Total Amount Disposed. Each quarter, the contractor submits the total tonnage of non-hazardous waste disposed. The contractor also submits the total tonnage of recycled. This is a "modified" diversion rate because it focuses directly on the contractor's portion of recycling and refuse disposal. The rate disregards other factors included in the installation's diversion rate (DRMO proceeds, Services recycling, construction debris, and etc.).

APPENDIX H

END NOTES

1. Office of Federal Procurement Policy, Policy Letter 91-2, "Service Contracting," 9 April 1991, and Office of Federal Procurement Policy, Policy Letter 93-1, "Management Oversight of Service Contracting," 18 May 1994.

2. Department of the Air Force, "A Plan to Accelerate the Transition to Performance-Based Services: Report of the 912(c) Study Group for Review of the Acquisition Training, Processes and Tools for Services Contracts," 19 March 1999, pgs. 7-8.

3. Gansler, Office of the Under Secretary of Defense, Memo, "Performance-Based Service Contracting (PBSC)," 2 July 1998.

4. Gansler, J. S., Office of the Under Secretary of Defense, Memo, "Training for Performance Based Service Acquisitions," 25 October 1999.

5. Department of the Air Force, *Contracting 21: 1999 Business Plan*, and "912(c) Study Group."

6. "912(c) Study Group."

7. Robertson, Charles T, General, Commander, Headquarters Air Mobility Command, Memo, "Performance-Based Contracting," 31 July 1999.

8. Air Force Civil Engineering Services Agency (AFCESA), "Relevant, Right-Sized, and Ready," *The CE*, Vol. 7, No. 3, Fall 1999, pg. 5.

9. Department of the Air Force, *Air Force Instruction 63-124, Performance-Based Service Contracts,* 1 April 1999, section 1.2, Key Management Duties.

10. Department of the Air Force, *Air Force Instruction 63-124, Performance-Based Service Contracts,* 1 April 1999, section 1.2.8, QA Personnel.

11. Department of the Air Force, *Air Force Instruction 63-124, Performance-Based Service Contracts,* 1 April 1999, section 4.1.5, Quality Assurance.

12. Federal Acquisition Regulation, FAR 52.212-4, Contract Terms and Conditions—Commercial Items, [Online], http://farsite.hill.af.mil, 30 September 1999.

13. Federal Acquisition Regulation, FAR 52.246-4, Inspection of Services—Fixed Price, [Online], http://farsite.hill.af.mil, 30 September 1999, and Federal Acquisition Regulation, FAR 52.246-5, Inspection of Services—Cost Reimbursement, [Online], http://farsite.hill.af.mil, 30 September 1999.

14. Federal Acquisition Regulation, FAR 12.402, Acceptance, [Online], http://farsite.hill.af.mil, 30 September 1999.

15. Federal Acquisition Regulation, FAR 46.202-2, Government Reliance on Inspection by Contractor, [Online], http://farsite.hill.af.mil, 30 September 1999.

16. "*AFI 63-124.*"

17. Scotton, Anne, "Performance Measures and the Federal Government," presentation to the 1999 Summit on Performance Measurements for Government, 16 June 1999.

18. Kaplan, Robert S., Norton, David P., "Using the Balanced Scorecard as a Strategic Management System," *Harvard Business Review*, Jan – Feb 96, Vol. 74, Issue 1, pg. 75.

19. Jog, Vijay, "Performance Measurement and the Public Sector," Corporate Renaissance Group, presentation to the 1999 Summit on Performance Measurements for Government, 15 June 1999.

20. Moore, David, Lieutenant Colonel, and Makosky, Lyle, "Linking Strategy to Performance Measurement: A Coherent Approach," presentation to the 1999 Summit on Performance Measurements for Government, 15 June 1999.

21. International Facility Management Association, "Information on Critical Issues Impacting the Profession," Facilities Management Research Reports

22. Baldridge, "1999 Criteria for Performance Excellence," http://baldridge.org/docs/99_crit/99crit-html/p10.htm [Online], 5 October 1999.

23. "*AFI 63-124*," section 3, Performance Management.

24. "1999 Criteria for Performance Excellence."

25. The same observations were also identified in: Baldwin, Laura H., Camm, Frank, and Moore, Nancy Y., "Innovative Uses of Performance Metrics in Strategic Sourcing," January 1998, pg. 10, PM-772-AF.

26. Williams, Kimberlee, Hanson, Thomas, and Tinney, Joseph J., "Service Quality: How to Define, Measure, and Improve It," presentation to the Performance Measures & Benchmarking for Strategic Facilities Initiatives conference, 3 August 1999.

27. Baldwin, Laura H., Camm, Frank, and Moore, Nancy Y., "Strategic Sourcing: Measuring and Managing Performance," September 1999, pg. 11, DB-287-AF.

28. Leighton, Barry, "Performance Measurement in the RCMP: Beyond Reporting for External Accountability & Toward Managing for Results," presentation to the 1999 Summit on Performance Measurements for Government, 15 June 1999.

29. Bens, Charles K., "Overcoming the Barriers and Myths of Performance Measurement," presentation to the 1999 Summit on Performance Measurements for Government, 16 June 1999.

30. "Innovative Uses of Performance Metrics in Strategic Sourcing," pg. 30.

31. Bens, Charles K., "The Ten Commandments of Performance Measurement for the Public Sector," presentation to the 1999 Summit on Performance Measurements for Government, 16 June 1999.

32. "Using the Balanced Scorecard as a Strategic Management System."

33. "Innovative Uses of Performance Metrics in Strategic Sourcing," pg. 19.

34. Blohowiak, Don, *How's All the Work Going to Get Done*, Franklin Lakes, Book-mart Press, 1995.

35. "Using the Balanced Scorecard as a Strategic Management System."

36. Petersen, Jorg, "Building a Framework for More Strategic, Results-Based Business Planning," presentation to the 1999 Summit on Performance Measurements for Government, 15 June 1999.

37. Air Force Civil Engineering Services Agency (AFCESA), "Market Research Analysis for [Custodial Services; Grounds Maintenance Services; Landscaping Services; Maintenance of Military Family Housing (MFH); and Refuse Collection and Recycling Services]," 1999.

38. Allen, John, "Performance Measurement and Resource Allocation," presentation to the 1999 Summit on Performance Measurements for Government, 15 June 1999.

39. Scherer, Andy, "Benchmarking," presentation to the Performance Measures & Benchmarking for Strategic Facilities Initiatives conference, 2 August 1999.

40. UMS Group, "Maxwell AFB Benchmarking Report," 5 November 1998.

41. *Ibid.*

42. "Performance Measurement and Resource Allocation."

43. "Linking Strategy to Performance Measurement: A Coherent Approach."

44. Goodman, John A., Bargatze, Gary F., and Cynthia Grimm, "The Key Problem With TQM," *Quality Progress*, Vol. 27, No. 1, January 1994, pg. 45.

45. *Ibid.*

46. *Ibid.*, pg. 46.

47. *Ibid.*, pg. 48.

48. Perske, Keith, "How Sun Microsystems Links Business Intent to RE Actions Through Performance Measures," presentation to the Performance Measures & Benchmarking for Strategic Facilities Initiatives conference, 3 August 1999.

49. Feret, Peter, "New Technologies and Their Use in Streamlining Facilities Services Delivery," presentation to the Performance Measures & Benchmarking for Strategic Facilities Initiatives conference, 3 August 1999.

50. *Ibid.*